

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : RE 40,051 E
APPLICATION NO. : 10/803197
DATED : February 12, 2008
INVENTOR(S) : Stamey, Jr. et al.

Page 1 of 8

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delete Title page illustrating a figure(s), and substitute therefor, new Title page illustrating a figure(s). (attached)

Delete drawing sheets 1-6, and substitute therefor drawing sheets 1-6. (attached)

Signed and Sealed this

Tenth Day of June, 2008



JON W. DUDAS
Director of the United States Patent and Trademark Office

(19) **United States**
 (12) **Reissued Patent**
 Stamey, Jr. et al.

(10) **Patent Number:** **US RE40,051 E**
 (45) **Date of Reissued Patent:** **Feb. 12, 2008**

(54) **ONE-PIECE SELF-VENTING DRAIN VALVE**

(75) Inventors: **Willie L. Stamey, Jr., Kings Mountain, NC (US); Mark A. Roll, Bessemer City, NC (US)**

(73) Assignee: **Wix Filtration Corp LLC, Gastonia, NC (US)**

(21) Appl. No.: **10/803,197**

(22) Filed: **Mar. 18, 2004**

Related U.S. Patent Documents

Reissue of:

(64) Patent No.: **6,565,746**
 Issued: **May 20, 2003**
 Appl. No.: **10/134,693**
 Filed: **Apr. 30, 2002**

(51) Int. Cl.
F16K 24/00 (2006.01)
B01D 35/00 (2006.01)

(52) U.S. Cl. **210/248; 210/313; 210/541;**
137/588

(58) Field of Classification Search **210/248, 210/313, 541; 137/588**
 See application file for complete search history.

(56) **References Cited****U.S. PATENT DOCUMENTS**

4,724,074 A * 2/1988 Schaupp 210/163
 4,893,651 A * 1/1990 Herman et al. 137/588
 4,922,960 A * 5/1990 Oelschlaegel 137/588

5,144,978 A * 9/1992 Brown et al. 137/588
 5,922,199 A * 7/1999 Hodgkins 210/256
 6,083,381 A * 7/2000 Connelly et al. 210/86
 6,237,628 B1 * 5/2001 Miller et al. 137/588
 6,248,236 B1 * 6/2001 Hodgkins 210/232
 6,258,269 B1 * 7/2001 Knight 210/248
 6,358,416 B1 * 3/2002 Miller et al. 210/248

FOREIGN PATENT DOCUMENTS

EP 1090667 * 4/2001

* cited by examiner

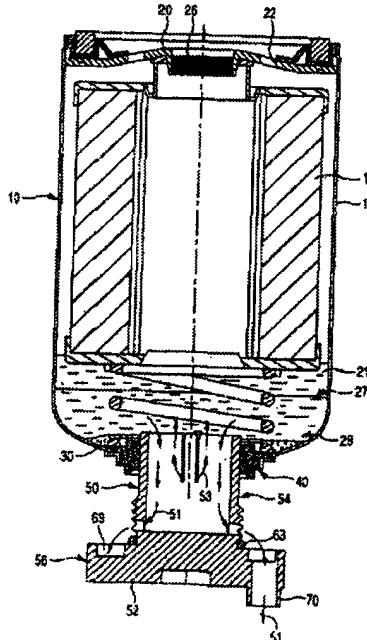
Primary Examiner—Thomas M. Lithgow

(74) *Attorney, Agent, or Firm*—Honigman Miller Schwartz Cohn LLP

(57) **ABSTRACT**

A self-venting drain valve is rotatably and slidably mounted to a filter assembly through an internally threaded base. The drain valve comprises a homogeneously formed one-piece unitary valve body including a tubular valve stem portion and a valve knob portion. The valve stem portion includes a wall member defining an internal passageway provided with axially extending air vent openings through which ambient air can enter a filter housing through the internal passageway, and drain holes through which water is drained from the filter housing and the internal passageway. The air vent openings are formed through an upper portion of the wall member and are open to a top edge thereof, while the drain holes are formed through the lower portion of the wall member. The liquid drains from the filter housing through the internal passageway and the drain holes, then exits into the valve knob portion.

21 Claims, 6 Drawing Sheets



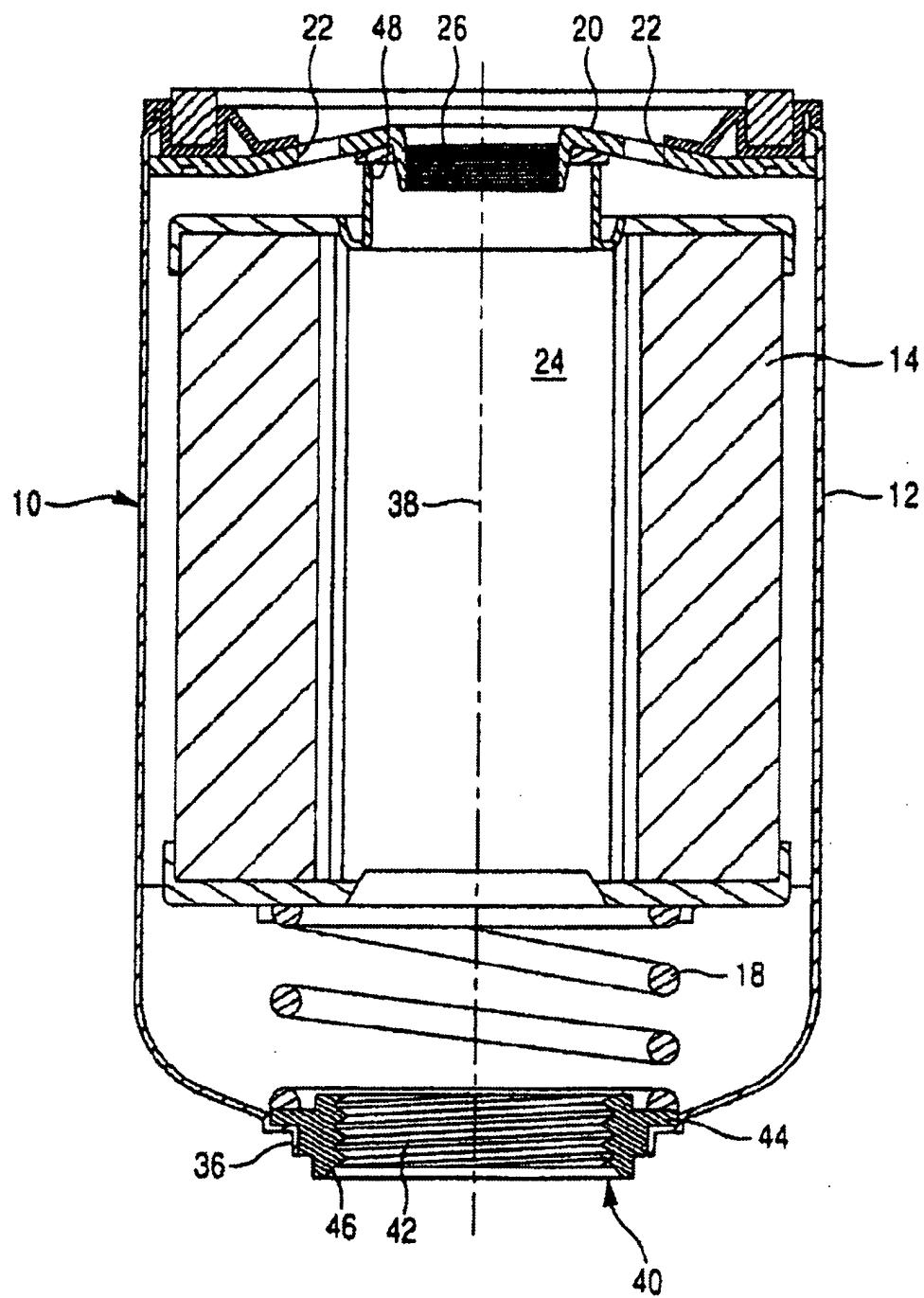
U.S. Patent

Feb. 12, 2008

Sheet 1 of 6

RE 40,051 E

Fig. 1



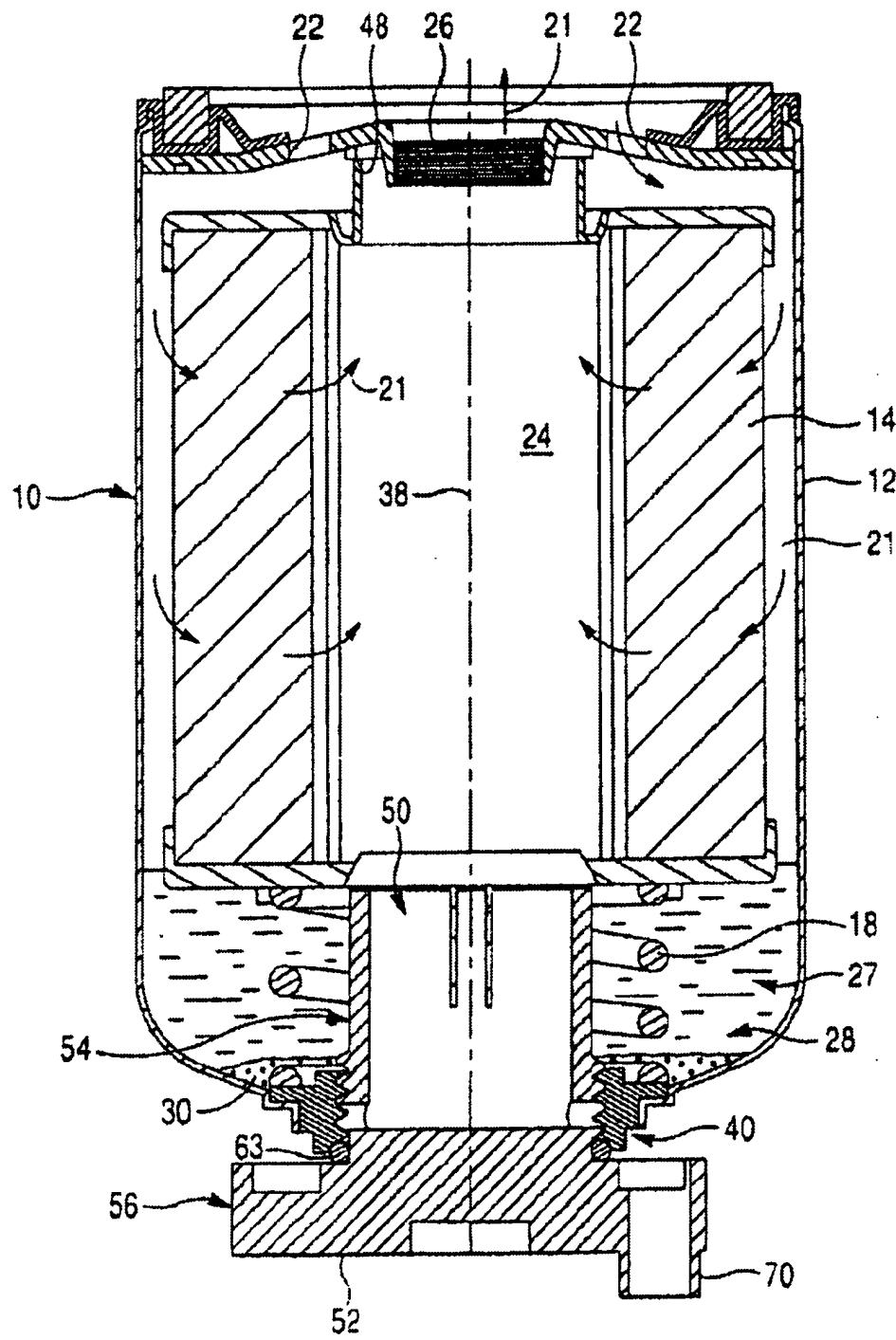
U.S. Patent

Feb. 12, 2008

Sheet 2 of 6

RE 40,051 E

Fig. 2



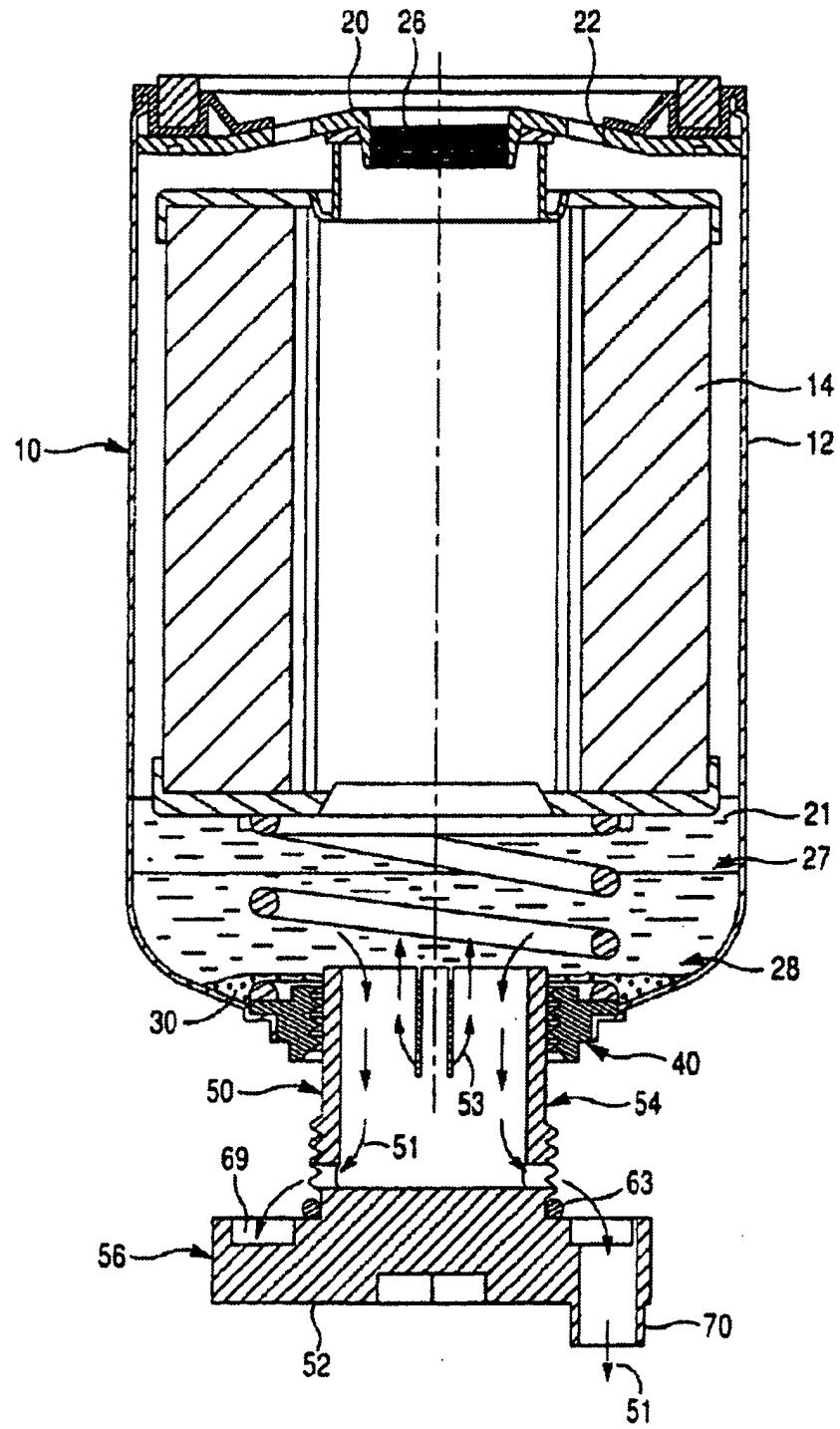
U.S. Patent

Feb. 12, 2008

Sheet 3 of 6

RE 40,051 E

Fig. 3



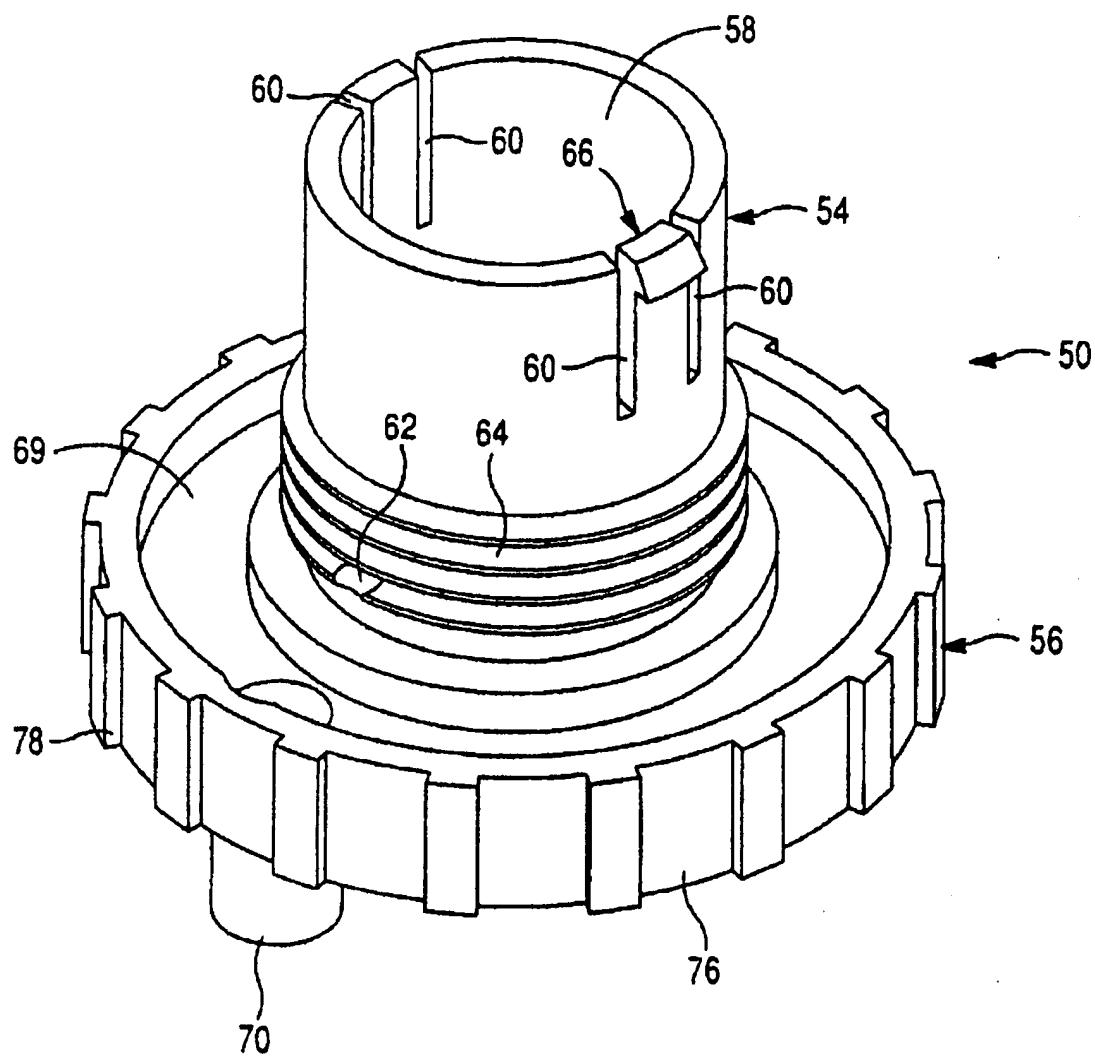
U.S. Patent

Feb. 12, 2008

Sheet 4 of 6

RE 40,051 E

Fig. 4



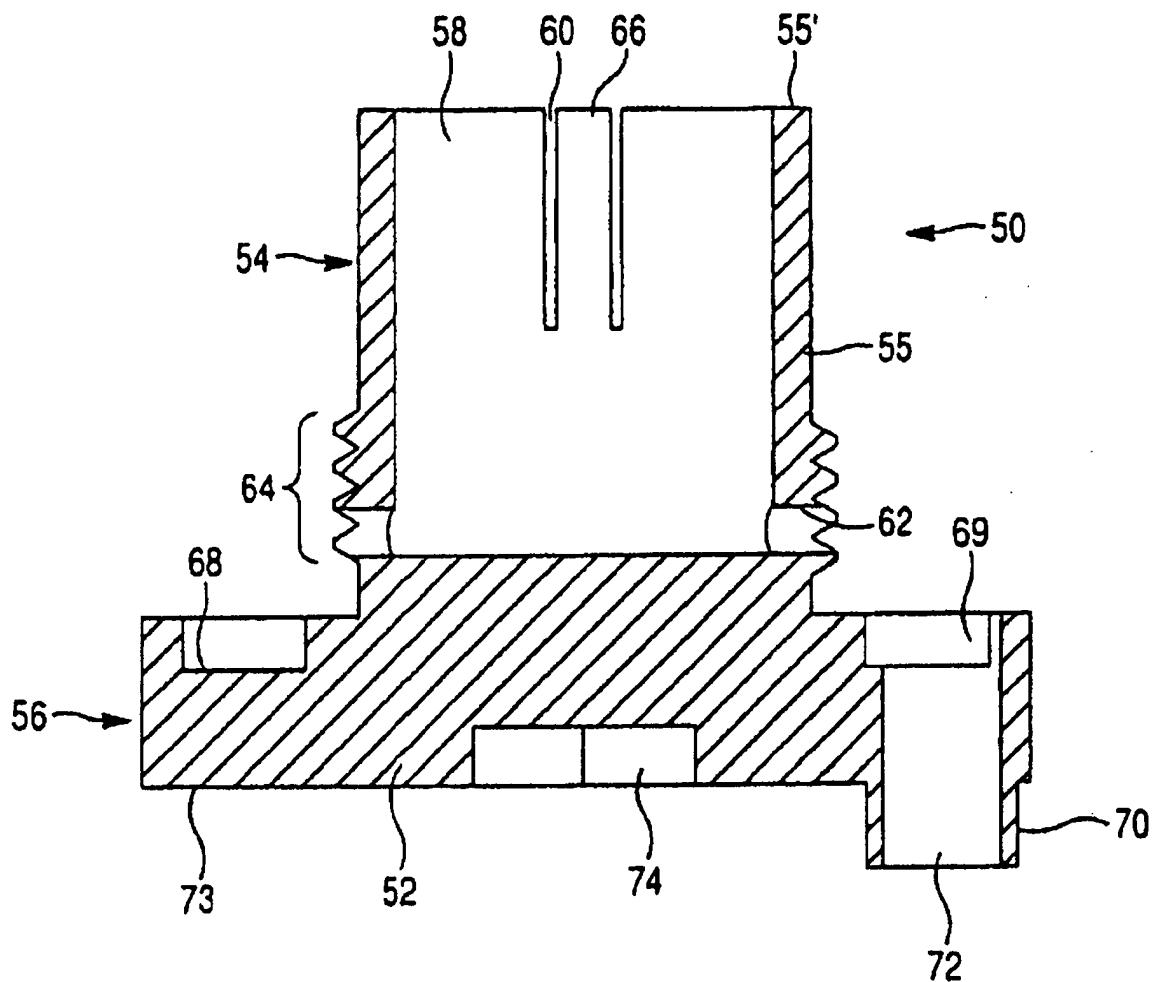
U.S. Patent

Feb. 12, 2008

Sheet 5 of 6

RE 40,051 E

Fig. 5



U.S. Patent

Feb. 12, 2008

Sheet 6 of 6

RE 40,051 E

Fig. 6

